



# County of San Diego

DANIEL J. AVERA  
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH  
P.O. BOX 129261, SAN DIEGO, CA 92112-9261  
(619) 338-2222 FAX (619) 338-2377

## SITE ASSESSMENT AND MITIGATION DIVISION

February 11, 1998

Thomas L. Macchiarella,  
Remedial Project Manager  
Dept. of the Navy, Southwest Division  
Naval Fac. Engineering Command  
Base Realignment & Closure Prgm. Office  
1420 Kettner Blvd., Suite 507  
San Diego, CA 92101-2404

Michael S. Bauer, SAR Project Manager  
Chevron Products Company  
P.O. Box 2833  
La Habra, CA 90632-2833

Dear Gentlemen:

UNAUTHORIZED RELEASE #H80125  
NAVAL TRAINING CENTER, NEX GAS STATION  
CTO-0064/0258, SITE 3, BUILDINGS 344 & 366  
2910 NIMITZ BOULEVARD, SAN DIEGO, CA 92106

UNAUTHORIZED RELEASE #H13227-001  
FORMER CHEVRON SERVICE STATION #9-5237  
1704 ROSECRANS STREET, SAN DIEGO, CA 92106-1928

This letter has been prepared in response to the report dated July 1997, and received July 22, 1997. The report was prepared by BECHTEL NATIONAL, INC. and was titled, TECHNICAL MEMORANDUM NO.6, REPORT ON COMBINED GROUNDWATER SAMPLING FOR FORMER CHEVRON GAS STATION 9-5237 AND THE NEX GAS STATION (SITE 3) AT NAVAL TRAINING CENTER SAN DIEGO, CALIFORNIA. This report was prepared to summarize the information obtained during collaborative (joint) groundwater sampling, analysis and interpretation. Joint groundwater sampling, analysis and interpretation was requested of Chevron and the Navy by the Department of Environmental Health (DEH) and the San Diego Regional Water Quality Control Board (RWQCB) in a May 26, 1996 letter, to facilitate understanding of the common contaminant hydrogeology between the two sites and a third property at 1661 Rosecrans Street.

### OPINION

The report confirmed distinct sources of hydrocarbon contamination at the former Chevron service station and the existing NEX gas station. The report did not show or prove the source of hydrocarbon contamination at 1661 Rosecrans Street. Instead, the report confirmed Chevron's and the Navy's unauthorized releases have contaminated 1661 Rosecrans Street. While exact percentages of ownership of the hydrocarbon plume at 1661 Rosecrans Street cannot be determined, it is apparent that Chevron caused

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the majority of the contamination, while the Navy caused the minority. It should also be noted the Navy's hydrocarbon source migrated south across Nimitz Boulevard and contaminated the Quality Inn property (2901 Nimitz Boulevard). The Quality Inn contamination is represented as phase-separated hydrocarbons (free product) in groundwater monitoring well MW-13. These opinions are discussed and supported in the following paragraphs.

#### 1661 ROSECRANS STREET

The property at 1661 Rosecrans Street is owned by Eilene Cummins of CRC Properties. Leighton and Associates had been retained to investigate groundwater and soil after contamination was discovered during previous geotechnical investigations. Leighton and Associates demonstrated that contaminated groundwater and contaminated soil gas exists at the site. Their investigation also showed that vadose zone soil is not contaminated. The data presented by Leighton and Associates and the data presented in the Navy's Technical Memorandum No.6 - July 1997, demonstrate the contamination at 1661 Rosecrans Street did not originate from the same. Based on a DEH review of the hydrogeological, chemical and cultural data, most of the contamination at 1661 Rosecrans Street originated from the former Chevron Service Station and a minor component of the contamination is from the operating Naval NEX Gas Station.

#### 2901 NIMITZ BOULEVARD - Quality Inn

After reviewing the Navy's Technical Memorandum No.6, it is apparent that potential impacts to public health at the Quality Inn have not been adequately investigated.

The property at 2901 Nimitz Boulevard is currently occupied by the Quality Inn. The contamination is represented by phase-separated hydrocarbons at the groundwater table. The Navy has claimed that contamination at this site is from an on-site source, not from the Navy. This claim is based on the interpretation of the occurrence of dissolved-phase and phase-separated hydrocarbons between the Naval NEX Gas Station and the Quality Inn property (Figures 5-3, 5-4, & 5-5). It should be noted that these figures are titled, **Interpreted Contours of Dissolved-Phase Contamination**. These maps are based on the plotted analytical results of groundwater contamination from groundwater wells that are not contaminated or from wells that contain dissolved-phase hydrocarbons and phase-separated hydrocarbons.

Plotting analytical results from groundwater monitoring wells that contain dissolved-phase and phase-separated hydrocarbons on the same map is deceptive. We feel that integrating two separate forms of contamination-type may not provide reliable information.

It is not inconceivable that a plume of gasoline and/or diesel originating from the NEX Gas Station could have migrated as far as MW-13. The Navy has been storing and dispensing gasoline and diesel at the NEX Gas Station since the 1950s. Fuel accumulation and migration for that length of time may have created a plume of this size. According to the LUCE, FORWARD, HAMILTON & SCRIPPS, LLP letter to Mrs. Eilene Cummins dated August 27, 1997, gasoline was discovered in a trench across the

street from the NEX Gas Station in 1973. It is the opinion of the DEH that phase-separated hydrocarbons observed across Nimitz Boulevard on the Quality Inn property in monitoring well MW-13 probably originated from the Navy's release(s) over the years.

The absence of phase-separated hydrocarbons between the Quality Inn property and the NEX Gas Station (in monitoring wells MW-6 and MW-16) may be explained by the geologic and hydrogeologic anisotropies observed by Bechtel National, Inc. during their prior subsurface investigations. These anisotropies include laterally-varying soil type differences and laterally-varying aquifer types (unconfined vs. semi-confined). It is important to recognize that phase-separated hydrocarbons only occur in a well as function of soil type, aquifer type, well construction and the amount of product head. Therefore, if subsurface conditions are ideal, product accumulation may accumulate preferentially or anisotropically.

Finally, over the last 40 years it is plausible that the City of San Diego or other utility providers have performed utility maintenance in Nimitz Boulevard between the NEX Gas Station and the Quality Inn property. Considering that groundwater in this area is 7 to 8 feet below ground surface, it is likely that dewatering would have been performed to facilitate maintenance, installation or replacement of deeper utilities. Dewatering may have removed any phase-separated hydrocarbons from the vicinity of monitoring wells MW-6 and MW-16.

#### RECOMMENDATIONS for the Navy

Monitoring well MW-12 does not provide downgradient delineation because the well screen is submerged below the existing water table. This well should be destroyed and properly reconstructed so that useful inferences can be made about contaminant delineation. Furthermore, detailed contaminant delineation should be done on the Quality Inn property. Detailed delineation is needed to determine the areal extent of phase-separated hydrocarbons below the Quality Inn buildings. If phase-separated hydrocarbons, dissolved-phase hydrocarbons or hydrocarbons vapors are below any of the Quality Inn buildings, a health risk assessment should be performed to assess the amount of carcinogenic and non-carcinogenic risk to the Quality Inn employees and guests.

#### RECOMMENDATIONS for the Navy and Chevron

- 1 - Re-plot the dissolved-phase hydrocarbon data only - do not plot the analytic data from the monitoring wells sampled that possess phase-separated hydrocarbons.
- 2 - Only plot dissolved-phase hydrocarbon data that is from the same sampling period - not from different years (1997 vs. 1992) as presented. Temporal variations in dissolved-phase hydrocarbons data preclude mixing of data sets. A plot of dissolved-phase data from different years (5 year span) may not provide reliable information.

#### AUTHORITY

The DEH does not have regulatory authority over the Navy for this project because of previous administrative changes. The DEH has regulatory

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authority over the Chevron project. The RWQCB has regulatory authority over the Navy project.

*This Division has presented these opinions and recommendations to protect public health. By advising the Navy of these conditions, the correct actions can be taken by the Navy to protect public health at the Quality Inn property.*

I hope this letter helps further clarify some basic issues with regard to the above cases. Please call me at (619) 338-2539 or e-mail me at mporteeth@co.san-diego.ca.us if you have any questions or desire a meeting.

Sincerely,

*Michael G. Porter*

MICHAEL G. PORTER, Project Manager  
Site Assessment and Mitigation Division

*K. M. Heaton*  
KEVIN HEATON, Senior Hydrogeologist  
Site Assessment and Mitigation Division

MGP:KH:kf

cc: Mrs. Eilene Cummins, CRC Properties  
Corey Walsh, Associate Engineering Geologist,  
San Diego Regional Water Quality Control Board  
John Odermatt, Associate Engineering Geologist,  
San Diego Regional Water Quality Control Board  
Tom Mills, Leighton and Associates  
Stephen P. McDonald, Luce, Forward, Hamilton & Scripps, LLP.  
Janet M. Lear, CTO Leader, Bechtel National, Inc.  
Gail Goldberg, Project Director, City of San Diego  
Martin Hausladen, U.S. Environmental Protection Agency - Region IX,  
Hazardous Waste Management Division, San Francisco  
Aaron Yue, California Dept. of Toxic Substances Control, Region 4  
Manager, Quality Inn @ 2901 Midway Dr., San Diego